

**ROCKY FLATS CITIZENS ADVISORY BOARD  
MINUTES OF WORK SESSION**

**December 7, 2000  
6:45 — 9:00 p.m.**

**Arvada Center for the Arts and Humanities  
6901 Wadsworth Boulevard, Arvada**

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**FACILITATOR:** Reed Hodgins

Jerry DePoorter, the Board's chair, called the meeting to order at 6:45 p.m.

**BOARD / EX-OFFICIO MEMBERS PRESENT:** Robin Byrnes, Eugene DeMayo, Jerry DePoorter, Joe Downey, Jeff Eggleston, Mary Harlow, Victor Holm, Bill Kossack, LeRoy Moore, Nancy Peters, Bill Petersen, Markuené Sumler, Bryan Taylor, Curt Watts / Steve Gunderson, Jeremy Karpatkin, John Rampe, Tim Rehder

**BOARD / EX-OFFICIO MEMBERS ABSENT:** Tom Gallegos, Paul Jurasin, Jim Kinsinger, Tom Marshall, Mary Mattson

**PUBLIC / OBSERVERS PRESENT:** Lane Butler (K-H); Anna Martinez (DOE); Rob Henneke (EPA); John Corsi (K-H); Roman Kohler (citizen); Gary Morgan (DOE); Darrell Cornell (MERCOS); John Faussett (CLEANUP); Shirley Garcia (Broomfield); Karen Reed (EPA); Louise Janson (citizen); Mariane Anderson (DOE); David and Doris DePenning (citizens); Don Owen (DNFSB); Russell McCallister (DOE-RFFO); Tom Stewart (CDPHE); Kimberly Chleboun (RFCLOg); Alan Trenary (citizen); Moe Bonakdar (MERCOS); Maby Mahboubi (MERCOS); Doug Young (Mark Udall's office); Carl Spreng (CDPHE); Ken Korkia (CAB staff); Deb Thompson (CAB staff); Noelle Stenger (CAB staff); Jerry Henderson (CAB staff)

**PUBLIC COMMENT PERIOD:** None received.

**INFORMATIONAL STATEMENT FROM KAISER-HILL:** Mark Spears with Kaiser-Hill distributed a letter from Bob Card describing the event at Building 771 where 10 workers were contaminated. On October 17, one of the air samplers in a tent was discovered to be beyond its required calibration period. There were some missing records, and so each worker who worked in the tent during the uncertain time period was asked to submit bioassay samples to ensure there was no uptake. On November 21, the first result showed that seven workers who submitted samples were above the decision level for detecting radioactivity. On November 27, the results from another three workers showed they were also above the decision level. The highest dose to any of the workers is about 20% of the allowed federal standard in any given year, which is 5,000 mrem. Kaiser-Hill is investigating to determine the cause of the uptakes; there is no obvious event to tie in with the contamination. As a result, operations in Building 771 have been terminated. There was a full radiological survey of the building, with workers using respiratory protection. After that survey, a number of contaminated areas were identified that were not previously identified. However, workers are not currently working in the areas where new

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contamination has been found, so those areas are not considered to be the problem. Kaiser-Hill continues to research the problem, and will keep the Board posted as new information becomes available.

**REGULATOR UPDATE — DNFSB:** Don Owen with the Defense Nuclear Facilities Safety Board gave a quarterly update on Rocky Flats Issues being tracked by his agency.

- General. Board member Jack Mansfield visited the site in late August. Don Owen's co-worker, David Grover, was reassigned to Hanford in September. The Rocky Flats site now will only have one representative from DNFSB.
- Risk Reduction. There has been a repackaging effort of plutonium residues. In the last fiscal year, DOE packaged about 30 metric tons of residues. Kaiser-Hill is on target to meet a key milestone, which is a May 2002 completion date. A milestone on ash may be combined in the future with that 2002 milestone. Building 771 solutions, to date Kaiser-Hill has completed draining 31 of 38 systems. A milestone with plutonium metal and oxides is to package the metal and oxides into containers designed for long-term storage. That would be accomplished with the Plutonium Stabilization and Packaging System; however, that system has not yet started up. The latest date for projected start-up is mid-March.
- Configuration Management of Safety Systems. A recent recommendation by DNFSB deals with configuration management of safety systems. DOE has submitted an implementation plan; that plan was accepted by DNFSB. There are three basic components: identifying safety systems, performing assessments to show an understanding of the safety systems, and how to maintain the safety function of the system. Assessments of Buildings 371 and 559 will occur within the next three months.
- Integrated Safety Management. Kaiser-Hill has had some problems at the activity level with planning for work and controlling work. Kaiser-Hill is revising guidance and putting more emphasis on having people understand safety controls, and more emphasis on people doing work that is defined, evaluated, and authorized.
- D&D Activities. There has been a next generation Inner Tent Chamber system, that instead of sliding doors for the enclosure, there are glove ports. Instead of workers directly holding mechanical cutting devices and having to lean into the enclosure, there are workers holding a light plasma arc torch to perform cutting. This next series is a good application of an engineered control in glovebox size reduction.

**PRESENTATION AND DISCUSSION ON RSAL Review — Task 2:** Russ McCallister with DOE-RFFO gave a brief presentation on the status of the Task 2 Report prepared as part of the RSAL review. The Task 2 Report deals with computer model selection and how it supports the calculation of RSALs. Computer models are based on future land use assumptions; incorporate the technical scope and complexity of risk-based cause and effect; estimate radionuclide concentration in the environment and the dose and risk to humans; and are a means for describing a scenario with patterns of activity, events, and processes that result in radiation exposure. In order to be acceptable for computing the RSALs, the computer code must meet seven criteria:

1. Does the model incorporate key processes from the Conceptual Site Model?
2. Does the model satisfy study objectives?
3. Has the model been verified using published analytical equations in scientific and technical journals?
4. Has the model been validated against known site conditions?

5. Does the model have the capability to satisfy study objectives using probabilistic analysis?
6. Is the model well documented? and
7. Is the model available in the public domain?

The model selection criteria was applied to RESRAD 6.0, D&D 2.0, RESRAD 5.82, and MEPAS/ GENII/ FRAMES/ SUM 3. These were considered because they assess radiation dose in a probabilistic manner. D&D 2.0 fails both criteria 3 and 4 (verification and validation), and is no longer the choice of the NRC. RESRAD 5.82 was considered good, but RESRAD 5.82 as modified by Risk Assessment Corporation has not been verified or validated and is not well documented. Without the fire scenario, results from the air resuspension calculation seem equivalent to RESRAD 6.0. Thus, RESRAD 6.0 will be used by the RFCA Regulators Working Group as the model of choice.

**PRESENTATION AND DISCUSSION ON RSAL Review — Task 5:** Next, Carl Spreng with CDPHE discussed the Task 5 Report, determining cleanup goals at radiologically contaminated sites. Case studies have been done at 13 sites, and include information on the background of the site, and cleanup level development such as the regulatory basis, radionuclides of concern, land-use scenarios, model, input parameters, cleanup level calculations, and modifying factors. It was discovered that there is no uniformity between major U.S. radiation standards between the EPA, the NRC, OSHA, and DOE, regardless of the type of standard being discussed. Variations in cleanup levels exist because of variations in regulatory authority, variations in radiation standards, variations in health assessment approaches (dose-based or risk-based), and variations in cleanup goals (screening levels, actions levels, remedial action objectives, final remediation goals). The conclusions were that modifying factors such as ALARA are often applied to calculated cleanup levels to produce final cleanup levels. The variation in health assessment approaches (risk and dose) leads to variation in assessed risk. Models, model version, and input parameters make a difference. Differences in cleanup levels from site to site are due to variations in one or more of the elements in the cleanup level development process. The differences in cleanup levels can only be understood within the context in which the decisions in each cleanup level development process were made.

**PRESENTATION ON RSAL Peer Review:** Mary Harlow briefly discussed the process for selecting peer reviewers for the RSAL review. The peer review model will be different than those selected for the project involving Risk Assessment Corporation. This time, the peer reviewers will be selected based on their expertise in certain areas. The RFCA Stakeholder Focus Group was asked to submit names of possible peer reviewers, and a list of qualified individuals has been assembled. There will be a fairly short turn-around time for selecting and contracting with peer reviewers (about two weeks). It is hoped this will be in place shortly after the first of the year. An update will be given at the next Board meeting. Ken Korkia noted that there have been some modifications to the calendar to accommodate a peer review process.

**Recommendation by Environmental Restoration Committee:** The Environmental Restoration Committee prepared a recommendation for the Board's review. A revised version of the recommendation was approved unanimously by the Board, which asks the RFCA agencies to provide for two public workshops related to the developed of RSALs. The Board also recommended that the first workshop focus on parameter selection, and the second workshop focus on the RESRAD computer model. The agencies are asked to conduct the public workshops at least three months prior to formal public comment on the

RSAL review.

**NEXT MEETING:**

**Date:** January 4, 2001, 6 - 9:30 p.m.

**Location:** College Hill Library, Front Range Community College, 3705 West 112<sup>th</sup> Avenue, Westminster

**Agenda:** Quarterly update by CDPHE; educational session on earned value system; presentation on RSAL Task 4 report; EMSSAB Stewardship Workshop draft recommendations

**ACTION ITEM SUMMARY: ASSIGNED TO:**

1. Revise and distribute recommendation on RSAL workshops - Staff

**MEETING ADJOURNED AT 9 P.M. \***

(\* Taped transcript of full meeting is available in CAB office.)

**RESPECTFULLY SUBMITTED:**

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Jeff Eggleston, Secretary  
Rocky Flats Citizens Advisory Board

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The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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